



Attorney Docket No.: 8E07.1-050
Application Serial No.: 10/623,382
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **EMS Technologies, Inc.**)
Serial No.: **10/623,382**)
File Date: **July 18, 2003**) Group Art Unit: 1116
Inventor(s): **CARSON, James**) Examiner: Unknown
For: **DOUBLE-SIDED, EDGE-MOUNTED**)
STRIPLINE SIGNAL PROCESSING)
MODULES AND MODULAR NETWORK)

)

INFORMATION DISCLOSURE STATEMENT

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October 29, 2003

Sir:

In accordance with 37 C.F.R. § 1.56, Applicant submits herewith form PTO-1449 disclosing all known documents material to patentability for the application identified above. Applicant respectfully requests consideration of the cited documents and making the same of record in the prosecution of this U.S. application. Copies of these documents are enclosed.

No fee is believed to be due, as this Information Disclosure Statement is submitted before receipt of this application's first Official Action on the merits. 37 C.F.R. § 1.97(b)(3). However, if the United States Patent and Trademark Office finds that a fee is due, please charge to deposit account no.: 50-2591

Respectfully submitted,



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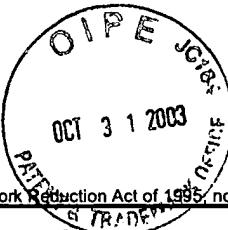
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Sheet

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Application Number	10/623,382
Filing Date	July 18, 2003
First Named Inventor	CARSON, James
Art Unit	Unknown
Examiner Name	Unknown

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U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
AA	US- 5,280,292		01-18-1994	Matra Marconi Space	
AB	US- 4,633,259		12-30-1986	Westinghouse Elect.	
AC	US- 4,503,434		03-05-1985	Ford Aerospace	
AD	US- 6,081,233		06-27-2000	Telefonaktiebolaget	
AE	US- 6,252,560 B1		06-26-2001	Denso Corporation	
AF	US- 4,638,317		01-20-1987	Westinghose Elect.	
AG	US- 5,691,728		11-25-1997	TRW Inc.	
AH	US- 5,777,579		07-07-1998	TRW Inc.	
AI	US- 6,225,947		05-01-2001	Telefonaktiebolaget	
AJ	US- 5,373,299		12-13-1994	TRW Inc.	
AK	US- 4,231,040		10-28-1980	Motorola, Inc.	
AL	US- 4,810,982		03-07-1989	Hughes Aircraft Comp	
AM	US- 5,455,742		10-03-1995	Eaton Corporation	
AN	US- 6,563,395 B2		05-13-2003	Matsushita Electric	
AO	US- 6,295,035 B1		09-25-2001	Raytheon Company	
AP	US- 6,480,524 B1		11-12-2002	Nortel Networks Lim	
AQ	US- 2002/0080066 A1		06-27-2002	Dent	
AR	US- 2002/0190891 A1		12-19-2002	Viana	
AS	US- 2003/0011519 A1		01-16-2003	Breglia	

FOREIGN PATENT DOCUMENTS

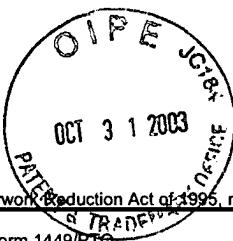
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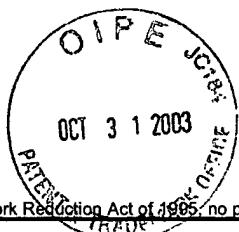
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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)			
	BA	09-093008	04-04-1997	Nippon Telegr &	
	BB	09-172317	06-30-1997	Lucent Technol	
	BC	2002-076726	03-15-2002	Mitsubishi Elec	
	BD	08-250922	09-27-1996	Nippon Telegr &	
	BE	08-250923	09-27-1996	Nippon Telegr &	

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NON PATENT LITERATURE DOCUMENTS

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	CA	ACCATINO, 12319 - MultiKaRa Deliverable D4 (update) Butler Matrices: Design & Breadboard, Information Society Technologies, 03-22-2001	
	CB	CAILLOCE, 12319 - MULTIKARA Deliverable D6 Demonstrator specifications, Information Society Technologies, 06-08-2001	
	CC	HAYASHI, Four-Element Planar Butler Matrix Using Half-Wavelength Open Stubs, IEEE M&WCL, March 2002, Vol. 12, No. 3, pgs 73-75	
	CD	BONA, Low-Loss Compact Butler Matrix for a Microstrip Antenna, IEEE Transactions on MT&Tech, Sept. 2002, Vol 50, No. 9, pgs 2069-2075	
	CE	DENIDNI, Microstrip 8X8 Butler Matrix for the Beamforming Network At 1.9 GHz Band, ISBN 84778.53495 ISRAMT'99, pgs 747-750	
	CF	ACCATINO, Cad of Waveguide Butler Matrices Including Mechanical and Thermal Constraints, Abstract, 4 pages	
	CG	SHELTON, Reflective Butler Matrices, IEEE Transactions on Antennas and Propagation, Sept. 1979, Vol. AP-27, No. 5, pgs 651-659	
	CH	ANG, A Wide-Band Monopulse Comparator With Complete Nulling in All Delta Channels Throughout Sum Channel Bandwidth, IEEE Trans on MT&T, Feb. 2003, Vol. 51, No. 2, pgs 371-373	
	CI	BARKER, An Octave Bandwidth Monopulse Processor, IEEE, 0-7803-4603-6/97, 3 pages,	
	CJ	RICARDI, A Diplexer Using Hybrid Junctions, IEEE Transactions on Microwave Theory and Techniques, Aug. 1966, Vol. MTT-14, No. 8, pgs 364-371	

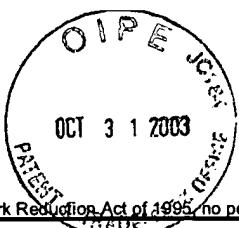
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Sheet 4

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First Named Inventor

CARSON, James

Art Unit

Unknown

Examiner Name

Unknown

Attorney Docket Number

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CK	SEKI, 30-GHz Multibeam Antenna Using Bi-Layer Butler Matrix Circuits, IEICE Trans. Commun., Dec. 1996, Vol. E79-B, No. 12, pgs 1778-1783	
	CL	ISOTA, A Simple Design Method of the Planar Butler Matrix Using Thin Dielectric Substrate Metalized Both Side, IEICE Trans. Electron, Feb. 2003, Vol. E86-C, No. 2, pgs 162-167	
	CM	HAYASHI, Radial Open Stub and Its Application to a Simple Design of a Four-element Planar Butler Matrix, IEICE Trans. Elec., May 2002, Vol E85-C, No. 5, pgs 1164-1169	
	CN	UEHARA, A Planar Sector Antenna for Indoor High-Speed Wireless Communication Systems, IEICE Trans. Commun., Dec. 1996, Vol. E79-B, No. 12, pgs 1773 - 1777	
	CO	ANGELUCCI, Multiport Power Amplifiers for Mobile-Radio Systems Using Microstrip Butler Matrices, IEEE, 1994, 0-7803-2009-3/94, pgs 628-631	

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